The Bcl-2 family of proteins is characterized by its ability to modulate cell death (apoptosis) under a broad range of physiologic conditions. Bcl-2 and several related proteins function to inhibit apoptosis, while other members of the Bcl-2 family, such as Bax and Bak, enhance cell death under various conditions. For instance, Bcl-xL represses cell death, while its shorter form, Bcl-xS, promotes apoptosis. A protein designated Bad exhibits homology to Bcl-2, limited to the BH1 and BH2 domains. Bad functions to dimerize with Bcl-xL and with Bcl-2, but not with Bax, Bcl-xS, Mcl-1, A1 or itself. In mammalian cells, Bad binds with greater affinity to Bcl-xL than to Bcl-2, and reverses the death repressor activity of Bcl-xL but not Bcl-2. Dimerization of Bad with Bcl-xL results in displacement of Bax from Bcl-xL: Bax complexes, thereby causing restoration of Bax-mediated apoptosis.

Genetic locus: BAD (human) mapping to 11q13.1; Bad (mouse) mapping to 19A.

Bad (C-7) is a mouse monoclonal antibody raised against amino acids 1-168 representing full length Bad of human origin.

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bad (C-7) is available conjugated to agarose (sc-8044 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8044 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-8044 PE), fluorescein (sc-8044 FITC), Alexa Fluor® 488 (sc-8044 AF488) or Alexa Fluor® 647 (sc-8044 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

Bad (C-7) is recommended for detection of Bad of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Suitable for use as control antibody for Bad siRNA (h): sc-29778, Bad siRNA (m): sc-29779, Bad shRNA Plasmid (h): sc-29778-SH, Bad shRNA Plasmid (m): sc-29779-SH, Bad shRNA (h) Lentiviral Particles: sc-29778-V and Bad shRNA (m) Lentiviral Particles: sc-29779-V.

Molecular Weight of Bad: 25 kDa.

Positive Controls: ARPE-19 whole cell lysate: sc-364357, PC-3 cell lysate: sc-2220 or C2C12 whole cell lysate: sc-364188.

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.